

REMARKS

We have canceled claim 8.

Claims 1-11 were rejected as being anticipated by Maki (U.S. Patent No. 5,777,317). As to claim 1, we submit that Maki fails to disclose or suggest an apparatus for driving a CCD image sensor including a power supply circuit having an over-boosting circuit for temporarily over-boosting the voltage supplied to the drive circuit to generate an over-boosted voltage exceeding a target control voltage for a predetermined time, prior to the charge transfer operation of the CCD image sensor, as recited in amended claim 1. Among other advantages, voltage control and over-boosting can be provided simply and in a compact design (see applicant's specification at page 13, line 16 to page 14, line 10 and Fig. 4(e)).

Although Maki discloses a boosting circuit including a bypass transistor M4 for quickly raising a booster voltage V_{out} (see column 4, lines 22-42 and Fig. 2 of Maki), nowhere does he disclose generating an over-boosted voltage exceeding a target control voltage for a predetermined time. And, although Maki raises a voltage to a target voltage V_{out} , Maki does not raise a voltage to an over-boosted voltage exceeding the target voltage V_{out} . Accordingly, we believe that the present invention of claim 1 is patentably distinguishable over Maki.

We submit that because claims 2-6 depend from independent claim 1, these dependent claims are patentable for at least the same reasons that claim 1 is patentable.

As to claim 7, we submit that Maki fails to disclose or suggest an apparatus for driving a CCD image sensor including a power supply circuit connected to a drive circuit, for supplying the drive circuit with a voltage for generating the pulse signal; the drive circuit and the power supply circuit being formed on a single semiconductor integrated circuit substrate, the power supply circuit enabled when the image sensor stops generating image sensor output signals as recited in amended claim 7. Support for the amendment of claim 7 can be found at page 13, lines 3-15 and Figs. 4(a) and 4(b) of applicant's specification. We note that Maki's V_{sub} generation boosting circuit 18 is not enabled when a CCD image sensor stops generating image sensor output signals. Accordingly, we believe that the present invention of claim 7 is patentably distinguishable over Maki.

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Serial No. : 09/775,402
Filed : February 1, 2001
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Attorney's Docket No.: 10449-
034001 / P1S2000190US

We submit that because claims 9- 11 depend from independent claim 7, these dependent claims are patentable for at least the same reasons that claim 1 is patentable.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: August 7, 2003



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